



PENDING CLAIMS

14. A method for capturing a video image of an element comprising the steps of:
- (a) providing a video camera system comprising a digital data processor, a video data capturing system and a memory module each housed within a camera body;
 - (b) storing a predetermined identifying name of the element in the memory module;
 - (c) associating a barcode with the element, said barcode comprising a bar pattern representative of the predetermined identifying name of the element;
 - (d) scanning the barcode with a barcode scanner directly connected to the video camera system by a port in the camera body thereby generating an electrical signal in response to scanning the bar pattern;
 - (e) interpreting the electrical signal within the video camera system to identify the element to the video camera system;
 - (f) capturing the video image of the element with the video data capturing system;
 - (g) processing the video image of the element with the digital data processor to provide a digital video image of the element; and,
 - (h) storing the digital video image of the element in the memory module with the identifying name of the element associated therewith.

Claim 15 is canceled.

16. The method according to claim 14 wherein the step of storing the predetermined identifying name of the element further comprises the step of:

(a) establishing an element record, on the memory module, said element record at least comprising a first data field for storing the identifying name therein, and, a second data field for storing the digital video image therein and wherein each data field of the element record is associated with the identifying name of the element.

Claims 17 & 18 are canceled.

19. The method of claim 14 further comprising the steps of:

- (a) determining parameters relating to conditions relating to the capturing of the video image of the element;
- (b) storing the parameters in the memory module; and,
- (c) associating the parameters with the identifying name of the element.

Claims 20 and 21 are canceled.

22. The method according to claim 38 wherein the removable memory module comprises a PCMCIA card installed in a PCMCIA slot of the video camera system.

Claims 23 - 27 are canceled.

28. A method for performing a videographic survey of a plurality of elements comprising the steps:

- (a) preparing a videographic survey database on a base computer operating a database program for storing and organizing data, the videographic survey database including a separate element record for each of the survey elements with each separate element record comprising a first data field for storing an identifying name of the survey element and a plurality of other data fields associated with the identifying name for storing other data associated with the survey element, the other data fields including data fields for storing any one of, a video image, an audio image, an audio data file, a text data file and a graphic data file;
- (b) transferring the separate element record for each element of the survey from the base computer to a memory module contained within a video camera system;
- (c) associating a barcode, including a bar pattern representative of the identifying name of the element, with each of the survey elements;
- (d) selecting one of the survey elements of the videographic survey for recording a video image thereof;
- (e) scanning the barcode associated with the selected one of the survey element with a barcode scanner which is in direct communication with the video camera system to determine the identifying name of the selected element, thereby identifying the selected element to the video camera system;
- (f) recalling the element record associated with the selected element from the memory module;
- (g) capturing a video image of the selected element with the video camera system;
- (h) converting the video image to a digital video image within the video camera system; and
- (i) storing the digital video image in an appropriate data field of the element record.

Claims 29 - 34 are canceled.

35. The method according to claim 28 wherein the step of preparing a videographic survey database further comprises the steps of:

- (a) converting the identifying name of the element to a barcode pattern using program steps stored on the base computer;
- (b) printing the barcode pattern representing the identifying name of the element onto a barcode label using a printer associated with the base computer; and,
- (c) locating the barcode label at a location associated with the element.

36. A videographic survey system for capturing an image of a plurality of survey elements comprising:

- (a) a base computer for preparing a videographic survey database;
- (b) a database program operating on the base computer for creating a separate element record for each survey element with each separate element record comprising an identifying name data field for storing an identifying name of the survey element therein and a plurality of other data fields associated with the identifying name data field for storing other data associated with the survey element;
- (c) a video camera system for capturing a video image of a selected survey element;

- (d) means for transferring the separate element record for each survey element from the base computer to a memory module contained within the video camera system;
- (e) a plurality of barcode labels associated one with each of the plurality of survey elements of the videographic survey, each barcode label including a bar pattern representative of the identifying name of the survey element associated therewith;
- (f) a barcode scanner in direct communication with the video camera system for scanning the barcode label associated with the selected survey element to identify the selected survey element to the video camera system; and,
- (g) a digital data processor contained within the video camera system for storing the video image of the selected survey element onto the memory module with the identifying name of the selected survey element associated therewith in response to capturing the video image.

37. The videographic survey system of claim 36 further comprising:

- (a) barcode converting program steps stored on the base computer for converting each of the element identifying names to a bar pattern representing the element identifying name; and,
- (b) a printer associated with the base computer for printing the barcode labels for associating with the survey elements.

38. The method according to claim 14 wherein the memory module comprises a removable memory module installed into a memory module port of the video camera

system and wherein the step of storing the digital video image of the element in the memory module stores the digital video image in the removable memory module.

39. The method according to claim 14 wherein the element comprises a plurality of elements and wherein each of the plurality of elements has a predetermined identifying name and a barcode comprising a bar pattern representative of the predetermined identifying name associated therewith; and further wherein the step of storing the predetermined identifying name of the element in the memory module is repeated for each of the plurality of elements, further comprising the steps of;

- (a) selecting any one of the plurality of elements in any order; and,
- (b) repeating steps c - g, of claim 14, until a video image of up to all of the plurality of elements is stored in the memory module.

40. The method according to claim 14 wherein the video camera system includes a display device driven by the digital data processor further comprising the step of:

- (a) displaying the digital video image of the element on the display device; and,
- (b) displaying the identifying name associated with the element on the display device simultaneously with displaying the video image of the element.

41. The method according to claim 28 wherein the step of transferring the separate element record for each element of the survey from the base computer to a memory

module contained within the video camera system further comprises the steps of one of:

- (a) connecting the video camera system with the base computer by an interface cable and transferring the element record from the base computer to the memory module contained with the video camera system via the interface cable; and,
- (b) removing a removable memory module from a memory port provided in the video camera system and installing the removable memory module into a memory port provided on the base computer;
- (c) transferring the element record from the base computer to the removable memory module; and,
- (d) thereafter returning the removable memory module to the video camera system.

42. The videographic survey system according to claim 36 wherein said means for transferring separate element records to the memory module associated with the video camera system comprises one of:

- (a) an interface cable connected between the base computer and the video camera system for transferring the element records from the base computer to the memory module associated with the video camera system via the interface cable; and,
- (b) a removable memory module which is movable between a memory port of the video camera system and a memory port of the base computer for interfacing with the removable memory module for transferring the element records from

the base computer to the removable memory module and thereafter returning the removable memory module to the video camera system.

43. The videographic system according to claim 42 wherein the removable memory module comprises a PCMCIA card.

44. An integrated video camera system for capturing a video image of a selected videographic survey element having a unique identifying name comprising;

- (a) a video image capturing system for capturing the video image of the selected element,
- (b) a digital data processor for controlling the video image capturing system;
- (c) an analog to digital conversion module for converting the analog video image to a digital video image;
- (d) a camera memory module in communication with the digital data processor for storing the unique identifying name of the selected element as well as for providing memory space for storing other data associated with the selected element in data fields, said other data having the identifying name of the selected element associated therewith;
- (e) a barcode scanner, in communication with the digital data processor for generating an electrical signal in response to scanning a barcode label associated with the selected element, said barcode label having a bar pattern representing the unique identifying name printed thereon;

- (f) a first set of program steps stored on the camera memory module and executable by the digital data processor for interpreting the electrical signal generated by the barcode scanner and for recalling data fields associated with the selected element from the camera memory module; and,
- (g) a display device associated with the video camera system and driven by the data processor for displaying the identifying name of the selected element in response to interpreting the electrical signal generated by the barcode scanner.

- 45. An integrated video camera system according to claim 44, further comprising a camera body for housing the video image capturing system, the analog to digital conversion device, the digital data processor, the camera memory module and the display device therein.
- 46. An integrated video camera system according to claim 45 further comprising a data entry device housed within the camera body and in communication with the digital data processor for providing an operator interface to the video camera system for selecting various modes of operation of the video camera system by the operator.
- 47. An integrated video camera system according to claim 45 wherein the display device is viewable by an operator through a viewfinder eyepiece connected to the camera body.
- 48. An integrated video camera system according to claim 44 wherein the camera memory module comprises two separate memory modules and wherein a first of the

two memory modules remains within the camera body and wherein a second of the two memory modules is removable from the camera body for transferring video image captured by the camera system to another device.

49. An integrated video camera system according to claim 44 further comprising a second set of program steps stored on the camera memory module and executable by the digital data processor for storing a video image of the element onto the camera memory module with the element name associated therewith.

50. An integrated video camera system according to claim 44 wherein the video image capturing system comprises an infrared sensor assembly for providing an electrical signal in response to receiving thermal radiation emitted by the selected element.

51. A system for conducting a videographic survey which requires capturing a video image of each a plurality of survey elements and wherein each survey element has a unique identifying name associated therewith comprising:

- (a) a base computer for operating a master database program used for storing and organizing data relating to each of the survey elements;
- (b) a separate element record of the master database program for each of the survey elements, the separate element record comprising an identifying name data field and a plurality of other data fields associated with the identifying name data field, said plurality of other data fields including data fields for

storing any one of a video image, an audio data file, a text data file and a graphics data file;

- (c) a video camera system for capturing the video image of each of the plurality of survey elements, the video camera system including a memory device for receiving element records of the master database program from the base computer and for storing video images captured by the video camera system with an appropriate identifying name field associated therewith;
- (d) a barcode scanner in communication with the video camera system for scanning a barcode label associated with each of the plurality of survey elements and wherein the barcode labels include a bar pattern representative of the identifying name of the survey element printed thereon; and,
- (e) a barcode interpreting program loaded onto the video camera system for interpreting the barcode pattern, to identify the element name to the video camera system so that the video image of the element can be stored in the memory with the appropriate element name associated therewith.

52. The system according to claim 51 wherein the memory device is removable from the video camera system and installable in the base computer for transferring data between the memory device and the base computer.

53. The system according to claim 51 wherein the video camera system further comprises:

- (a) a display device; and,

- (b) a processor for driving the display device to display a display layout comprising a field for displaying the identifying name of the selected survey element in response to scanning the barcode associated with the selected survey element and a field for displaying a video image of the selected survey element.

54. The system according to claim 51 further comprising:

- (a) a program operating on the base computer for converting elements names to a bar pattern; and,
- (b) a printer associated with the base computer for printing the bar patterns onto labels for associating with survey elements.

55. The system according to claim 51 wherein the video camera system further comprises an infrared sensor assembly for providing an electrical signal in response to receiving thermal radiation emitted by each of the plurality of survey elements.

56. The method according to claim 16 wherein the element record further includes a plurality of other digital data fields for storing other digital data relating to the element.

57. The method according to claim 56 wherein the step of storing a predetermined identifying name of the element further comprises the step of storing the other digital data relating to the element in said other digital data fields.

58. The method according to claim 57 wherein the video camera system includes a display device, further comprising the step of:

- (a) displaying the identifying name of the element on the display device in response to interpreting the electrical signal; and,
- (b) displaying selected of said other digital data stored in the element record on the display device in response to interpreting the electrical signal.

59. The method of claim 56 further comprising the steps of:

- (a) determining parameters relating to conditions of capturing of the video image of the element; and,
- (b) storing the parameters in said element record.

60. The method of claim 14 wherein the video camera system includes a display device further comprising the step of:

displaying the identifying name of the element on the display device in response to interpreting the electrical signal.

61. A method for capturing a video image of an element comprising the steps of;

- (a) providing a video camera system comprising a digital data processor, a video data capturing system and a memory module each housed within a camera body;
- (b) storing a predetermined identifying name of the element in the memory module;
- (c) scanning a barcode associated with the element with a barcode scanner directly connected to the video camera system by a port in the camera body, said barcode including a bar pattern representative of the predetermined name of the element; and,
- (d) displaying the predetermined element name on a display device of the video camera system in response to scanning the barcode, thereby identifying the element to an operator of the video camera system.

62. The method of claim 61 further comprising the steps of:

- (a) capturing the video image of the element with the video data capturing system; and,
- (b) storing the video image of the element in the memory module with the predetermined element name associated therewith.

63. The method of claim 61 further comprising the step of: simultaneously displaying the predetermined element name and the captured video image of the element on the display device.

64. The method of claim 61 further comprising the steps of:

- (a) storing a plurality of data fields relating to the element in the memory module, each data field having the predetermined element name associated therewith; and,
- (b) displaying at least a portion of the plurality of data fields relating to the element on the display device in response to scanning the barcode, thereby providing the operator with access to the data in the data fields.

65. The method of claim 64 further comprising the steps of:

- (a) capturing the video image of the element with the video data capturing system;
- (b) storing the video image of the element in the memory device with the predetermined element name associated therewith, and,
- (c) storing additional data relating to the capturing of the video image in the memory device with the predetermined element name associated therewith.

66. A method for capturing a video image of an element comprising the steps of;

- (a) providing a video camera system which houses a memory module, a digital data processor and a video image capturing system within a camera body thereof and which include a barcode scanner in communication the digital data processor for scanning barcode patterns;
- (b) storing a predetermined identifying name for each of a plurality of elements in the memory module; and,
- (c) scanning a barcode associated with any one of the plurality of elements with the barcode scanner to identify the element to the digital data processor, said barcode including a bar pattern representative of the predetermined identifying name.

67. The method of claim 66 further comprising the steps of:

- (a) capturing an image of the element with the video data capturing system; and,
- (b) storing the image of the element in the memory module with the predetermined identifying name of the element associated therewith.

68. A video camera system comprising:

- (a) a digital data processor, a video data capturing system and a memory module housed within a camera body for capturing, processing and storing videographic images; and,

- (b) a barcode scanner in communication the digital data processor for scanning barcode patterns for identifying elements to be videographed to the digital data processor.

69. The video camera system of claim 68 wherein the video data capturing system comprises an infrared sensor assembly for providing an electrical signal in response to receiving thermal radiation emitted by the elements.